

**ABSTRACT**

Process for carrying out non-adiabatic reactions comprising the steps of:

- 5 introducing in parallel a first stream of reactants into a first reaction space and a second stream of reactants into a second reaction space;  
at reaction conditions contacting the first reactant stream with a catalyst in the first reaction space in indirect  
10 heat exchange with a heat exchanging medium and contacting the second reactant stream with a catalyst in the second reaction space in indirect heat exchange with a heat exchanging medium, and withdrawing a first and second steam reformed product gas; and  
15 the catalyst in the first reaction space being arranged within a tubular reactor in indirect heat exchanging relationship with the heat exchanging medium by introducing the medium into tubular heat exchange space concentrically surrounding the tubular reactor with the first reaction space,  
20 the catalyst in the second reaction space being arranged on shell side of a heat exchange space in indirect heat exchanging relationship with the heat exchanging medium.